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Council Paper No. 31 of 1941.

HEALTH.

Medical and Sanitary Report of the Director of Medical Services
for the year 1939.

*Circulated for information. To be laid before
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HEALTH.

Medical and Sanitary Report of the Director of Medical Services for the year 1939.

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HONOURABLE COLONIAL SECRETARY,

I have the honour to submit, for the information of His Excellency the Governor and Legislative Council, the following report and returns showing the operations of the Health Department for the year ended 31st December, 1939.

SECTION I.—ADMINISTRATION.

(a) Staff:

1. The outbreak of the war had the immediate effect of greatly increasing the work of the Health Department on whose officers, in the absence of an army medical service, devolved the medical care of the considerably expanded army personnel and the sanitary supervision of their camps. In these circumstances the work of the department would have been seriously embarrassed, had it not been for the co-operation of members of the medical profession and of ladies of the colony who had been members of the nursing profession.

The recently formed Central Council Branch of the British Red Cross Society also offered their co-operation and they, in consultation with the department, undertook the first aid work in connection with Air Raid Precautions. Facilities were made available at the Colonial Hospitals in Port-of-Spain and San Fernando for the training in nursing of members of voluntary aid detachments.

2. The establishment of the department was increased by the addition of four posts of medical officers of health and by certain additions to junior staff.

3.—*Training of Personnel:*—Dr. J. H. Pierre was elected a Fellow of the Royal College of Surgeons, Edinburgh.

Nineteen student nurses of the department completed their training and qualified as certificated nurses.

Two candidates from Trinidad obtained the Sanitary Inspector's certificate of the Royal Sanitary Institute.

(b) Finance:

4.—*Revenue:*

Medical Receipts	....	....	....	....	\$ 43,656.14
Fumigation Fees	....	....	....	....	588.24
Milk Badges, Vendors' Badges, Dairymen's Licences	....	....	....	....	171.84
Surplus Stores	....	....	....	....	72.47

					\$ 44,488.69

5.—*Expenditure:*

		Personal Emoluments.	Travelling and Transport.	Other charges.	Total.
		\$ c.	\$ c.	\$ c.	\$ c.
Coll.	W.C. 10 Dec	237,760 25	(a) 13,669 96	12,725 28	264,155 49
Call	+	207,982 08	4,703 24	414,097 37	626,782 69
No.	Ann Ry	15,719 88	2,802 05	26,740 76	45,262 69
	WA28	55,520 76	16,981 74	60,548 61	133,051 11
	. G.T.	6,063 73	—	3,664 46	9,728 19
	T83	—	—	22,800 00	22,800 00
	1939	—	—	378 07	378 07
		523,046 70	38,156 99	540,954 55	1,102,158 24

(a) Includes salaries of Medical Officers in district service.

(b) Includes travelling and transport expenses.

SECTION II.—PUBLIC HEALTH.

(a) General Remarks:

6. The visit to Trinidad of the Royal Commission was an important feature of 1939. Arrangements were made for members to examine all matters pertaining to the health and social conditions of the colony and visits were paid to medical and social welfare institutions and to areas where activities of particular interest to health were in progress.

(b) General Diseases:

7. Table I shows the main causes of deaths by totals under the different heads.

(c) Communicable Diseases:

8. The prevalence of notifiable diseases in 1939 is given in Table II.



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(d) *Vital Statistics:*

9. The estimated population of Trinidad and Tobago as at 31st December, 1939, was 473,455, an increase of 8,566 over that of 1938. The excess of births over deaths was 7,034 while immigration exceeded emigration by 1,532. The various rates given below are based on the mean population for the year, *viz.*:-469,172.

10. Total live-births numbered 14,525 giving a birth rate of 30.96. Still births numbered 917.
11. The total number of deaths in the Colony was 7,491 and the death rate was 15.97.
12. The infantile mortality rate was 103.61.

SECTION III.—HYGIENE AND SANITATION.

1. PREVENTIVE MEASURES.

(i) *Mosquitoes and Insect-borne Diseases.*

13. The control of Aedes Aegypti was well maintained in Port-of-Spain while in San Fernando, during the dry season, the index was reduced by active control measures from 67 to 18.5.

14. *Malaria.*—Anopheline control measures were carried out in ravines, water-courses, and swamps in various parts of the Colony under the five-year development programme. In addition to filling, clearing and regrading measures, 23,737 feet of drains were concreted in the Northern Division alone.

15. In the Southern Division, under the same programme, extension works were carried out at Vistabella, Bonasse Village (Cedros), Brighton and Lagon d'Or Ravines, California Village, whilst considerable work elsewhere in the Division was carried out.

16. Progress was also made as regards anti-malarial measures by Oil Companies and Sugar Estates, notably, Trinidad Leaseholds Limited, United British Oilfields of Trinidad, Trinidad Lake Asphalt Company, Usine Ste. Madeleine, Reform and Caroni Estates.

17. This is not a notifiable disease and diagnosis by microscopical examination is not always available, reliance being placed on clinical symptoms. Statistical data are, therefore, of inadequate value. The disease continues to show a steady decline during the last few years. In 1939, the death rate was 0.95 as compared with 1.07 in 1938 and 1.11 in 1937.

(ii) *Epidemic Diseases.*

18.—*Typhoid Fever.*—There was a still further reduction in the incidence of enteric fever, 400 cases being notified as compared with 439 for the year 1938 and 665 for the year 1937.

19.—*Dysentery.*—394 cases were notified of which 101 occurred in the outskirts of San Fernando.

20. *Rabies.*—There was no human nor animal case of the disease for the year 1939. In 1938 there was also no human case, and only two animal cases. The capture and destruction of desmodus bats continued, 1,066 having been destroyed. Examination of 953 showed 20 with negri bodies in their brains.

21.—*Diphtheria.*—87 cases were notified with 6 deaths.

22.—*Anti Anterior Poliomyelitis.*—Five cases were notified with two deaths. The distribution was as follows:—Port-of-Spain, 1, San Fernando, 2, Erin-Siparia 1, Chaguanas 1.

(iii) *Other Diseases.*

23.—*Tuberculosis.*—There was an increase in the mortality from the pulmonary form of the disease—466 deaths having occurred in contrast to 381 in 1938.

24.—*Leprosy.*—There were 77 admissions to the Leper Settlement at Chacachacare. 52 were discharged and 43 died. There were 377 patients in the Settlement at 31st December as compared with 395 at the close of 1938.

25.—*General Diseases.*—The venereal diseases clinic, Port-of-Spain, completed its first year of work. There were 2,293 new cases seen in 1939. At the clinics of Port-of-Spain, St. Joseph and Tacarigua there were 34,318 attendances, and at San Fernando 9,429. The total number of new cases of Venereal Diseases treated at Colonial Hospitals and Clinics was as follows:—

Syphilis 2,607, Gonorrhoea 1,634, Granuloma and others 849.

26.—*Yaws.*—4,017 cases were treated during the year.

27.—*Ophthalmia Neonatorum.*—There were 83 cases notified.

(iv) *Helminthic Diseases.*

28.—*Ankylostomiasis.*—More intensive measures for treatment and prevention were instituted during the year. Two qualified microscopists, 15 orderlies, and two clerks were appointed to conduct a systematic campaign from village to village—all working under the supervision of a medical officer of health. The unit was employed in Cedros district in the Southern Division.

A survey of this district showed the following infestation rate:—

Village.	Original Infestation Rate.		Persisting Infestation Rate.	

Lochinaben-Icacos	51.25	1.10
Bonasse-La Retraite	51.00	4.71
Southern Central Road	76.27	0.00
Chatham to Erin Road	77.37	0.00
Irois Forest to Cap-de-Ville	72.57	0.00
Syphoo Trace and Point Coco	95.90	0.00

The figures given in the second column above indicate the result of this period of work. Practically all the houses in this area are now supplied with latrines. On completion of the work this unit was transferred to the Point Fortin-La Brea area where the infestation rate varies from 71% to 25%.

The drugs used were Ol. Chenopodium, Carbon tetrachloride and "Expulsina" (Mayer product containing carbon tetrachloride—purified and aloin) and Carbon tetrachlorethylene.

The order of efficiency of these drugs in producing ova free specimens is as follows:

Expulsina	—	maximum effective dose 2—3
Carbon tetrachlorethylene	„ „ „	3—4
Carbon tetrachloride	„ „ „	4—5
Ol. Chenopodium	„ „ „	7—10

No toxic results were obtained from the use of any of these drugs but Expulsina was considered the favourite drug by those receiving treatment. In a campaign it was the most economical but unfortunately it is not available any longer.

In other parts of this division some 3,000 cases were treated.

Medical Officers of Health employed by companies and estates undertake routine examination for hookworm of person seeking employment. Treatment is also given. By this means incidence on many fields was maintained at a low level.

In the Northern Division, 2,298 persons were treated.

While these figures show a marked increase in anti-hookworm activities, it is clear that to deal with the problem satisfactorily a considerable increase in staff is required.

2. GENERAL MEASURES OF SANITATION.

(a) Water Supplies.

29.—*Central Supply*.—There were further extensions of the central water supply to include the following areas:

In the north—Morvant Housing Estate, 10th Avenue Barataria, Curepe, San Juan, Piarco, St. Helena and Kelly Village.

In the south—the south-eastern section of San Fernando and villages along the following roads, the Moruga, the Naparima-Mayaro, the Piparo, the Torrib-Tabaquite and the San Fernando-Siparia-Erin.

Certain estates and oilfields have also improved and augmented their supplies, e.g. Caroni Estates Ltd., provided pipe borne supply to Felicite. The Apex Oilfields Ltd., supplies the villages of Fyzabad and Oropuche; Point Fortin Refinery supplies the Point Fortin Village; the Guayaguayare Company, the village of Abyssina.

30.—*Other Sources*.—Government cisterns for storage of rain water exist in areas not favoured with a pipe borne supply, e.g. Mayo, Moruga, Basseterre, Erin and Plaisance villages.

Ponds, shallow wells and dams—the supply from which is unsafe—are being gradually replaced by extensions from the Central Water Supply.

Regular bacteriological examinations of water from the Central Supply were continued uninterrupted during the year and shewed a high degree of purity. Periodical chemical examinations were also undertaken.

31.—*New Supplies*.—Arrangements were begun for providing a pipe borne supply to Cedros, and the Trinidad Leaseholds have arranged to supply the villages of Guayaguayare and La Susanne.

(b) Sewage Disposal.

32. A preliminary survey was undertaken for providing a water borne sewage system to the area between Tunapuna and Port-of-Spain.

33.—*Rural*.—The privy cesspit remains the usual method of disposal in the rural districts. Impervious concrete pits were constructed in the larger villages with the back portion of the superstructure fitted with a sealed cover so as to permit cleaning without damage to the structure. In smaller villages, in hilly districts, "soak-away" pits connected to the original privy cesspits are becoming popular. Soil pollution is reduced and the breeding of flies and mosquitoes controlled. Pail cess-pits are disappearing though a few still exist in sugar estates, railway stations, and private residences.

34.—*Scavenging*.—The scavenging service was carried out by the Local Health Authorities under a contract system which on the whole is satisfactory. The service was extended to the villages of Chaguanas and Sangre Grande.

In the town of San Fernando the daily scavenging was done by means of mule carts and covered motor lorries. From a central depot the refuse was removed by lorries to a dumping ground. Litter baskets were erected in the principal streets of the town.

On the oilfields scavenging is most satisfactory. Specially equipped motor lorries with tilting devices are in use on some of the fields. On sugar estates scavenging shows some improvement especially where the long range barracks have been replaced by workers' cottages. In the northern division 1,353 new dust bins were provided during the year, in San Fernando 251.

(c) Disposal of House Refuse.

35. In San Fernando the final disposal of house refuse was by means of controlled tipping in Vistabella. In rural districts dumping grounds were maintained in good condition. At the St. Augustine nurseries the activated compost heaps proved a valuable source of manure.

3. SCHOOL HYGIENE.

36. Schools were inspected regularly and quarterly reports submitted for the information of the Department of Education. Medical examinations of school children was continued in Port-of-Spain and San Fernando and in certain of the rural schools. Pupils of the latter group were

examined to the extent of 9,400. Of these, 5,062 were from the Southern Division and a point of interest is that while the incidence of Xerosis in urban schools was 0.28 per cent. it occurred in rural schools 8.98 per cent. The highest incidence was found in the male East Indian school population.

37. A survey of hookworm infestation was conducted in 24 schools of the Southern Division. The incidence was 82.25 per cent. and at the close of the year the persisting rate was 35.7 per cent.

38. School nurses made 3,069 home visits.

39. The Coterie of Social Workers conducts breakfast sheds in Port-of-Spain and San Fernando where meals for school children are provided at a nominal cost and, in necessitous cases free of charge.

40. Dental caries continues to take the most prominent place in defects the incidence being 57.29 per cent. in urban and 61.53 per cent. in rural schools.

4. LABOUR CONDITIONS.

41. In the northern division there was some improvement in the general industrial and economic conditions. The rice crop was satisfactory and cocoa estates were able to provide more labour towards the close of the year owing to a rise in the price. The sugar estates gave increased attention to sanitation and general labour conditions. Woodford Lodge Estates spent about \$25,000 on road construction, general drainage and yard improvement. Caroni Ltd. erected a clinic and new cottages at Waterloo.

42. In the southern division there was noticeably a higher standard of living with better wages and better housing. A Safety Department was established at the Trinidad Leaseholds, Pointe-a-Pierre, under competent safety engineers.

43. The Caroni Estates established dispensaries at Caroni, Brechin Castle and Exchange Estates, and a central clinic was maintained at Waterloo with an ambulance to serve as a mobile first aid unit. The central clinic is equipped for surgical work and has X-ray and electrical departments, a well equipped laboratory and dispensary. A whole time medical officer employed by the Company is in charge who works in close collaboration with the department.

44. At the Usine Ste. Madeleine Sugar Company a health visitor was appointed in control of six creches ; she also undertakes maternity and ante-natal work.

5. HOUSING.

45. Building activity continued to show a marked increase. 4,550 applications were approved in the course of the year by the various Local Health Authorities. Certain oil companies and estates continued their programme of housing for their labourers. United British Oilfields of Trinidad Ltd., maintained the progress to which reference was made in 1938, and Apex (Trinidad) Oilfields Ltd., commenced a housing scheme. Messrs. Caroni Estates Ltd., continued their housing scheme and erected 38 new cottages at Brechin Castle. Reform Estate erected 14 workmen's cottages.

6. FOOD IN RELATION TO HEALTH AND DISEASE.

46. A "Grow More Food" campaign was inaugurated as a war emergency measure, special attention being directed towards the replacement of imported food by green and fresh vegetables. Greater encouragement is now given to stock rearing for the production of fresh milk. Land Settlement schemes of mixed farming at Toco, Cumuto and Santa Cruz have been successfully launched.

47. *Food Inspection.*—Sanitary inspectors discharged the duty of inspecting and controlling the sale of foodstuffs in shops and markets. Shop-keepers responded readily to the "Sale of Food" bye-laws.

SECTION IV.—PORT HEALTH WORK AND ADMINISTRATION.

48. There were 1,355 arrivals as compared with 1,377 in the year 1938. Of these 1,332 came from non-convention ports.

49. There were 3,544 passengers and 28,914 crews inspected making a total of 32,458.

50. During the year 289 persons were placed under surveillance, all for small-pox. These figures include passengers arriving by aeroplane. In all, passengers paid 1,123 visits, and 10 persons were allowed to proceed to the country under District Medical Officer supervision.

51. 930 persons arriving in the Colony from Venezuelan ports were vaccinated during the year as compared with 940 in the previous year.

52. During the year 13 vessels were fumigated ; 11 of these being rice ships, from Calcutta chiefly. The remaining two were fumigated at the owners' request.

SECTION V.—MATERNITY AND CHILD WELFARE.

53. Admissions to the Colonial Hospital, Port-of-Spain were 1,247 whilst the number in San Fernando was 454. The district maternity services associated with these hospitals carried out 415 and 56 confinements respectively.

54. 2,296 new cases were dealt with at the ante-natal clinics.

55. Child Welfare work continued to be performed by the Child Welfare League of Trinidad and Tobago. A new branch was opened at Caroni Estate, and two out-station clinics at Parry Lands and Non Parcill Estate.

56. Total attendances of children numbered 65,592 and 59,970 home visits were paid by child welfare nurses.

SECTION VI.—COLONIAL HOSPITALS AND DISPENSARIES.

57. The average daily number of in-patients treated in the Colonial, district and emergency hospitals was 899.13.

58. The total admissions were 21,987. There were 1,917 deaths.

59. Malaria caused the largest number of admissions, over 1,200 being treated in hospital. The case mortality was 4.6 per cent.

60. Admissions on account of venereal diseases numbered 942, while 213 additional cases were admitted for treatment of urethral stricture.

61. Table III gives diseases and deaths in hospitals during 1939.

62. The following indicates the work at the outpatients departments at Port-of-Spain and San Fernando :—

Casualty Departments	<i>New cases.</i>
Medical „ (in Port-of-Spain only)	16,198
Surgical „ „ „	142
Gynaecological „ „ „	287
Sick children „ „ „	562
Dental „ „ „	652
Ophthalmic „ „ „	7,518
Ear Nose and Throat Department	3,062
Ante-natal „ „ „	1,577
Urological Department (Attendances) „ „ „	2,296
	381

63. Attendances at Health Offices of paupers and poor persons numbered 180,313.

64. Leper Settlement, Chacachacare. Details are given in Section II— Communicable Diseases.

65. *Mental Hospital*.—There were remaining in Hospital on 31st December, 1938, 786 (426 male and 360 female) patients. In 1939 there were 258 admissions, 1,432, discharges, and 99 deaths. Thus there were 803 (429 male and 374 female) remaining on 31st December, 1939.

66. Recent mania, confusional insanity, and schizophrenia headed the list of admissions while confusional insanity was as usual the most recoverable.

67. The commonest causes of death were diseases of the heart and tuberculosis.

68. Table IV gives the conditions for which patients were admitted to the Mental Hospital and Table V the causes of deaths.

SECTION VII.—LABORATORY SERVICES.

69. There was a considerable increase in the number of specimens submitted during 1939 as compared with the year 1938, due mainly to the large number of bloods received for serological examination from the venereal diseases clinic and of urine from various sources. A total of 41,480 specimens was examined in addition to 1,039 samples of water collected from various parts of the Colony. 1,890 bats were also examined for negri bodies and 292 post mortem examinations were performed.

A. RANKINE,

12th July, 1941.

Director of Medical Services.

TABLE I.

The Principal Causes of Death for the year 1939.

<i>Causes.</i>						
Enteric Fever	...	...	...	...	...	110
Influenza	...	...	...	...	...	19
Malaria	...	...	...	...	...	454
Dysentery	...	...	...	...	...	59
Pulmonary Tuberculosis	...	...	...	...	...	466
Syphilis	...	...	...	...	...	142
Cancer	...	...	...	...	...	210
Cerebral Haemorrhage and Apoplexy	...	...	...	...	...	211
Infantile Convulsions	...	...	...	...	...	45
Cardiac and Valvular Diseases	...	...	...	...	...	558
Bronchitis	...	...	...	...	...	329
Broncho Pneumonia	...	...	...	...	...	176
Lobar Pneumonia	...	...	...	...	...	174
Pneumonia (not otherwise defined)	...	...	...	...	...	60
Diarrhoea and Enteritis	...	...	...	...	...	362
Ankylostomiasis	...	...	...	...	...	161
Nephritis	...	...	...	...	...	460
Diseases of Puerperal State	...	...	...	...	...	99
Diseases of Early Infancy	...	...	...	...	...	879
Old Age	...	...	...	...	...	773

TABLE II.

Prevalence of Notifiable Diseases, 1939.

Enteric Fever	...	...	...	...	...	400
Pneumonia	...	...	...	...	...	656
Pulmonary Tuberculosis	...	...	...	...	...	500
Tuberculosis (other forms)	...	...	...	...	...	24
Diphtheria	...	...	...	...	...	87
Chicken Pox	...	...	...	...	...	240
Ophthalmia Neonatorum	...	...	...	...	...	83
Acute Poliomyelitis	...	...	...	...	...	5

TABLE III.

General Diseases Treated in Hospitals, 1939.

Diseases.		Admissions.	Deaths.
	I.		
Cancer	...	...	41
Tumours—Non-Malignant	...	130	5
Rheumatism	...	97	4
Deficiency Diseases	...	31	5
Diabetes	...	143	27
Anaemias	...	197	20
Diseases of the Ductless Glands	...	25	6
Alcoholism	...	42	1
Poisoning	...	23	2
Other General Diseases	...	68	32
	II.		
Affections of the Nervous System	...	1,455	127
	III.		
Affections of the Circulatory System	...	959	216
	IV.		
Affections of the Respiratory System	...	1,307	227
	V.		
Diseases of the Digestive System	...	2,848	149
	VI.		
Diseases of Genito Urinary System (non-Venereal)	...	2,192	93
	VII.		
Puerperal State	...	2,464	73
	VIII.		
Affections of the Skin and Cellular Tissues	...	1,694	28
	IX.		
Diseases of Bones and Organs of Locomotion (other than Tuberculosis)	...	338	5
	X.		
Malformations	...	28	6
	XI.		
Diseases of Infancy	...	283	163
	XII.		
Affections of Old Age	...	198	56
	XIII.		
Affections produced by external causes	...	3,079	69
	XIV.		
Ill-defined Diseases and Unspecified Causes	...	539	35
	XV.		
Diseases the total of which have not exceeded 10 deaths	...	115	3
Total	...	18,478	1,393

TABLE IV.

Showing Conditions for which Patients were admitted to the Mental Hospital, 1939.

Congenital mental deficiency	...	...	...	...	16
Insanity with epilepsy	...	...	...	...	5
General paralysis	...	...	...	...	5
Insanity with gross brain lesion	...	...	...	...	6
Confusional insanity	...	...	...	...	35
Stupor	...	...	...	...	5
Dementia Praecox	...	...	...	...	35
Manic Depressive	...	...	...	...	11
Mania, Recent	...	...	...	...	38
do. Recurrent	...	...	...	...	7
do. Chronic ...	...	...	...	...	1
Melancholia, Recent	...	...	...	...	14
do. Recurrent	...	...	...	...	1
Delusional, Systematised	...	...	...	...	9
do. Non-systematised	...	...	...	...	25
Volitional insanity	...	...	...	...	5
Senile Dementia	...	...	...	...	24
Secondary Dementia	...	...	...	...	6
Not insane	...	...	...	...	2

TABLE V.

Showing causes of deaths of Patients dying at the Mental Hospital, 1939.

Epilepsy and Convulsion	...	...	...	...	6
General Paralysis	...	...	...	...	11
Maniacal and Melancholic Exhaustion	...	...	...	...	2
Other diseases of the Brain	...	...	...	...	17
Apoplexy and Paralysis	...	...	...	...	—
Inflammation of lungs, pleura and bronchi	...	...	...	...	5
Pulmonary Tuberculosis	...	...	...	...	13
Diseases of the Heart	...	...	...	...	32
Dysentery and Diarrhoea	...	...	...	...	2
Bright's disease	...	...	...	...	1
Inflammation of the stomach, intestine and peritoneum	3
General debility	1
Enteric fever	3
Carcinoma	2
Toxaemia	1

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